Remarks/Arguments:

The pending claims are 1-26. Claims 1 and 4 have been amended. Claims 14-26 have been added. No new matter is introduced therein.

The disclosure has been objected to for a number of reasons. First, the Office Action has concluded that page 2, lines 9-12 "appears to be directly opposite" to page 2, lines 22-24. Applicants respectfully disagree because each section discusses something different. Lines 9-12 discuss the effect of applying power near the output port of the SAW filter. On the other hand, lines 22-24 discuss power durability at the input terminal. Accordingly, applicants respectfully request that this objection be withdrawn.

The Office Action also objected to other parts of the disclosure. Based on the Examiner's helpful suggestion, applicants have amended page 15, line 11 and page 15, line 14. The following parts of the disclosure have also been amended: page 16, lines 5-9; page 16, line 22-page 17, line 1. Accordingly, applicants request that the objections to the specification be withdrawn.

Applicants have amended pages 16 and 17 of the specification and Figure 22 of the drawings to clarify the description of the drawings. No new matter is introduced. On page 16, reference number 225 has been added after the phrase "the other series arm SAW resonators." Figure 22 has been amended to show which series arm SAW resonators are referred to by reference number 225. Reference number 225 has been added to the two resonators that are shown in the top horizontal line in Figure 22, the two resonators being to the right of resonator 223b. The series arm SAW resonators now identified by reference number 225 were already shown in Figure 22. The only change made by the amendment is to identify them with a reference number. On page 17, reference number 227 has been added after the phrase "the parallel arm SAW resonator." Figure 22 has been amended to show which parallel arm SAW resonators are referred to by reference number 227. Reference number 227 has been added to the two resonators that are shown in the parallel lines that are to the right of resonators 226a, 226b. The parallel arm SAW resonators now identified by reference number 227 were already

shown in Figure 22. The only change made by the amendment is to identify them with a reference number.

Applicants have amended the Abstract so that it is consistent with the specification and with amended claim 1.

Claim 1 has been rejected under 35 U.S.C. § 112, first paragraph. Claim 1 has been amended. The amendment is supported by page 9, lines 10-15 of the specification. Amended claim 1 is consistent with the specification. Therefore, applicants request that this rejection be withdrawn.

Claims 1-3 have been rejected under 35 U.S.C. § 103(a) as unpatentable over Nishihara et al. (U.S. Patent No. 5,909,156) taken in conjunction with applicants' admitted prior art Figure 29. Claim 1 has been amended to recite that

> said transmission filter has a power durability at said output port thereof, the power durability being equal to or larger than a power durability at said input port thereof.

The Office Action contends that "[b]ecause the SAW filter circuit [of Nishihara] is symmetrical (i.e. P=P, S=S, and P' in the middle), the filter must inherently have equal power durability at each of its input port and output/antenna port." The Office Action further contends that its inherency argument is supported by the fact that the SAW filter in Hishihara was designed for high power durability. Applicants respectfully disagree with the analysis of the Office Action.

Applicants acknowledge that Nishihara generally refers to improved high power durability and how to accomplish it. See, e.g., col. 4, lines 47-50 (substrate temperature below 200°C "improves the anti-migration property and the high-power durability of the SAW device"); col. 5, lines 36-40 (when the thickness of a second film formed of Mg is 5-20%of the total thickness of the electrode, the "range further increases the high-power durability of the" SAW device); col. 5, lines 53-56 (a specified three layer structure improves high-power durability "because the film thickness can be comparatively easily controlled"); col. 7, lines 48-50 ("the formation of a solid solution layer or an alloy layer has a great influence on the

high-power durability of the device). However, Nishihara nowhere discusses power durability at an output port of a transmission filter, power durability at an input port of a transmission filter, or a comparison of power durability at the output port with the power durability at the input port of a transmission filter.

Nevertheless, the Office Action contends that "the filter must inherently have equal power durability at each of its input port and output/antenna port" because "the SAW filter circuit is symmetrical." Applicants respectfully submit that there is no basis for this inherency contention in Nishihara in view of the fact that Nishihara nowhere discusses power durability at an output port and/or at an input port. Furthermore, the Office Action has not provided any evidentiary support for its conclusion that "the filter must inherently have equal power durability" at the input and output ports. Since an inherency contention is similar to taking official notice or relying on "common knowledge," the USPTO must present substantial evidence in support of an inherency rejection. *In re Zurko*, 59 USPQ 2d 1693 (Fed. Cir. 2001). The USPTO cannot rely on an inherency contention unless the facts asserted to be inherent are capable of instant and unquestionable demonstration as being inherent. See also, *Continental Can Co. USA Inc. v. Monsanto Co.*, 948 F.2d 1264, 20 USPQ 2d 1746 (Fed. Cir. 1991).

Accordingly, amended claim 1 is not subject to rejection under 35 U.S.C. § 103(a) as unpatentable over Nishihara. Similarly, since claims 2 and 3 depend from amended claim 1, they are also not subject to the same rejection for at least for the same reasons that amended claim 1 is not subject to rejection. Since claims 4-13 also depend from amended claim 1, they are also not subject to the same rejection at least for the same reasons that amended claim 1 is not subject to rejection.

The Office Action stated that claim 4 would be allowable if applicants confirm that it correctly recites that the "first resonator includes a plurality of second series arm SAW resonators" and is "disposed at an outermost arm towards said antenna terminal." These recitations in claim 4 are supported by, for example, resonator 45b and terminal 42 in Figure 5, by element 135c in Figure 13, and by page 15,

lines 1-5. Accordingly, claim 4 is allowable. In addition, since claims 5-12 depend from claim 4, they are also allowable.

Claim 8 has been amended to make it depend from claim 7 instead of claim 6 because the better antecedent basis for claim 8 is claim 7.

Claims 9-11 have been amended to improve the recited numbering of the various series arm SAW resonators so that they are consistent with claim 4. For example, claim 9 has been amended by changing "a fourth series arm SAW resonator" to "a third series arm SAW resonator."

Claims 12-13 have also been amended to improve the recited number of the various parallel arm SAW resonators. For example, claim 12 has been amended by changing it from reciting "a fourth parallel arm SAW resonator" to reciting "a first parallel arm SAW resonator."

Claims 14-26 have been added. New claim 14 recites the features in claim 4 that the Office Action stated contains allowable subject matter:

> wherein said transmission filter includes a first SAW filter having a first series arm SAW resonator disposed at an outermost arm towards said antenna terminal, and
>
> wherein said first series arm SAW resonator includes a plurality of second series arm SAW resonators connected in series with each other.

Accordingly, claim 14 is allowable. Since claims 15-26 depend from claim 14, they are also allowable for at least the same reasons that claim 14 is allowable. Claims 15 and 16 mirror claims 2 and 3, respectively. Claims 17-25 mirror claims 5-13, respectively. Claim 26 recites that

> said transmission filter has a power durability at said output port thereof, the power durability being equal to or larger than a power durability at said input port thereof.

These recitations in claim 26 are the same recitations that are now in amended claim 1 and which were discussed above. Since the features recited in claim 26 (and in amended claim 1) are not found in Nishihara, claim 26 is allowable for these additional reasons.

The prior art made of record and not relied upon is not considered any more pertinent to applicants' disclosure than that already cited.

For the foregoing reasons, Applicants respectfully solicit allowance of the entire application.

Respectfully submitted,

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SW/fp

Dated: August 25, 2003

The Commissioner for Patents is hereby authorized to charge payment to Deposit Account No. **18-0350** of any fees associated with this communication. Daniel N. Calder	I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on: **August 25, 2003** Daniel N. Calder

ABSTRACT

An antenna duplexer has a power durability to a signal input from an antenna terminal and has stable characteristics. The antenna duplexer includes an input terminal, a transmission filter including a surface acoustic wave (SAW) filter having an input port connected to the input terminal, a phase shifter having an input port connected to an output port of the transmission filter, a reception filter having an input port connected to an output port of the phase shifter, an output terminal connected to the output port of the reception filter, and an antenna terminal connected between the transmission filter and the phase shifter. The transmission filter has a power durability at the output port of the filter, being equal to or larger than a power durability at the input port of the filter.